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FIG. 1

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130
Prediction
Engine

160
Data
Warehouse

122
Local Database

140
Model

124
**Local Metadata
Database**

Ext Doc
150

Analytical Application Provider (AAP)

120

110
Business Rule Engine

101
Front-End
Software
Application
(Internet Sales/
Internet Service)

100
Front-End
Software
Application

102
Front-End
Software
Application
(Mobile Sales/
Mobile Service)

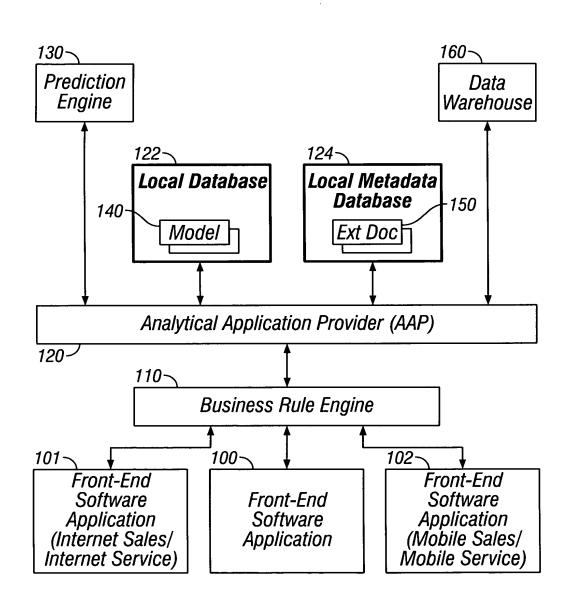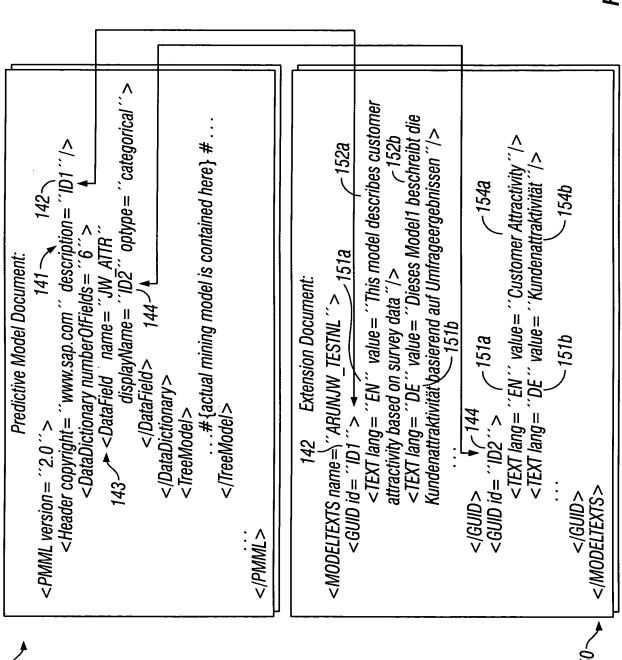**FIG. 2**

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Predictive Model Document:

```
<PMML version = "2.0" >
  <Header copyright = "www.sap.com" description = "ID1"/>                    141    142
  <DataDictionary numberOfFields = "6" >
    <DataField name = "JW_ATTR"                    143
               displayName = "ID2" optype = "categorical" >
    </DataField>                    144
  </DataDictionary>
  <TreeModel>
    ...# {actual mining model is contained here} # ...
  </TreeModel>
</PMML>

...
```

140

Extension Document: 142

```
<MODELTEXTS name = "ARUNJW_TESTNL" >                    151a
  <GUID id = "ID1" >                    152a
    <TEXT lang = "EN" value = "This model describes customer
                   attractivity based on survey data"/>                    152b
    <TEXT lang = "DE" value = "Dieses Model1 beschreibt die
                   Kundenattraktivität basierend auf Umfrageergebnissen"/>                    151b
    ...
  </GUID>                    144
  <GUID id = "ID2" >                    151a    154a
    <TEXT lang = "EN" value = "Customer Attractivity"/>
    <TEXT lang = "DE" value = "Kundenattraktivität"/>                    154b
    ...                    151b
  </GUID>
</MODELTEXTS>
```

150

FIG. 3

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240 —

```
Predictive Model Document with Embedded Extension Document:

<PMML version= "2.0">                                    241        242
    <Header copyright= "www.sap.com" description= "ID1"/>
    <DataDictionary numberOfFields= "6">
243      <DataField  name= "JW_ATTR"
                displayName= "ID2" optype= "categorical">
        </DataField>                         244
    </DataDictionary>
    <TreeModel>
        ...          # [actual mining model is contained here] # ...
    </TreeModel>
    <Extension   extender= "sap.com"  name= "Model Texts">
        <MODELTEXTS name= "ARUNJW_TESTNL">      251a   252a
            <GUID id= "ID1">
242              <TEXT lang= "EN"  value= "This model describes
            customer attractivity based on survey data"/>
                <TEXT lang= "DE"  value= "Dieses Modell
            beschreibt die kundenattraktivität basierend auf
            Umfrageergebnissen"/>          252b
                ...
                                           251b
        </GUID>                           244
        </GUID id= "ID2">        251a                     254a
            <TEXT lang= "EN" value= "Customer
        Attractivity"/>      251b
            <TEXT lang= "DE" value= "
        Kundenattraktivität"/>
            ...              254b
        </GUID>
        </MODELTEXTS>
    </Extension>
</PMML>
```

250

FIG. 4

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170 ⟶

172
Receive Task Request from a Front-End Software Application

↓

174
Determine Prediction Engine to be Used for Task Request

↓

176
Invoke Prediction Engine to Obtain Results Using Selected Predictive Model

↓

178
Receive Prediction Model Output from Prediction Engine (Including Output Data and Description of Data Fields from Predictive Model)

↓

180
Query if Predictive Model Uses External Texts (e.g., "ID1") in Descriptions of Data Fields ?

No ←   → **Yes**

182
Output to Front-End Software Application the Output Data and the Data Field Descriptions Received from the Predictive Model Output

184
Determine the Selected Output Language from the Front-End Software Application (e.g., Assigned Upon Login of the Front-End Software Application)

↓

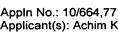186
Convert Data Field Description Texts Received from the Predictive Model Output to Real Textual Descriptions (in the Selected Output Language) from the Extension Document

↓

188
Output to Front-End Software Application the Output Data Received from the Predictive Model Output and the Data Field Descriptions Converted from the Extension Document

FIG. 5

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Model Information

Name	ARUNJW_TESTNL		Description	This model describes customer attractivity based on survey
Created By	STUMPA		Created On 312	6/17/03 1:17 PM
Changed By	STUMPA		Modified On	6/17/03 12:00 PM
Trained on	6/17/03 12:00 PM		Mining Function	Approximation
Source Server	Q2I		Source Model Name	ARUNJW_TESTNL
Mining Method	SAP Regression			

Model Field:

	Name	Description		Field Type	Data Type
321	JW_ATTR	Customer Attractivity	331	Categorical 332	String
322	JW_IND	Industry		Categorical 333	String
323	JW_PURP	Purchase Planned		Categorical 334	String
324	JW_RAND	Random Value		Categorical 335	Double
325	JW_SALVIS	Sales Representative Requeste		Categorical 336	String
326	JW_SIZE	Company Size		Categorical 337	Integer
327	JW_VOL2	Volume 2		Continuous	Double

Delete

300

310

FIG. 6
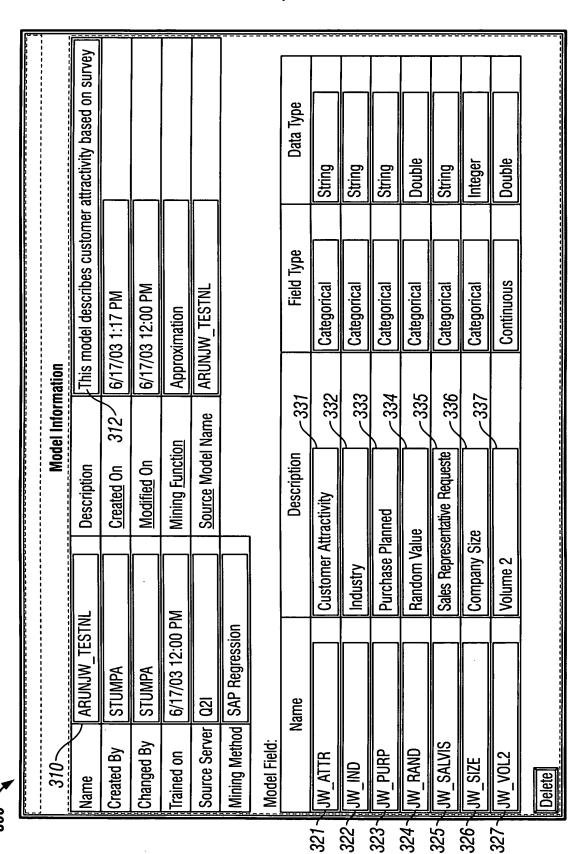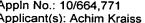
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Modellinformationen

Name	ARUNJW_TESTNL	Beschreibung	Dieses Modell beschreibt die Kundenattraktivität basierend auf Umfrageergeb
Angelegt von	STUMPA	Angelegt am *412*	17.06.03 13:17 PM
Geändert von	STUMPA	Geändert am	17.06.03 12:00 PM
Trainiert am	17.06.03 12:00 PM	Mining-Funktion	Näherung
Quellserver	Q2I	Ursprungsmodellname	ARUNJW_TESTNL
Mining Methode	SAP Regression		

Modellfelder

Name	Beschreibung *431*	Feldtyp	Datenart
JW_ATTR	Kundenattraktivität *432*	Categorical	String
JW_IND	Industrie *433*	Categorical	String
JW_PURP	1st eine Anschaffung geplant *434*	Categorical	String
JW_RAND	Zufallszahl *435*	Categorical	Double
JW_SALVIS	Vertreterbesuch gewuenscht *436*	Categorical	String
JW_SIZE	Grösse des Unternehmens *437*	Categorical	Integer
JW_VOL2	Umfang 2	Kontinuierlich	Double

Loschen

410

400

421 422 423 424 425 426 427

FIG. 7